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THEORIES OF CULTURAL EVOLUTION

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Social thinkers constantly confuse social evolution and cultural evolution. By social evolution we mean the evolution of communities and their organization; by cultural evolution we mean the evolution of what is ordinarily called "civilization," for which, however, the recognized scientific term is "culture." Much of the confusion in the social theorizing of the present springs from the fact that the cultural group is considered to be "society," and social evolution to be identical with cultural evolution. Thus Ward, for example, constantly speaks of "achievement" as the matter or content of social evolution.[1] We find often the same error, also, in particularistic or unilateral views of the social life. A theory of social evolution in predominantly economic, or religious, or rationalistic terms must evidently be a theory of cultural rather than of social evolution in the broadest sense; for economic, religious, and rationalistic phenomena—indeed, all that we may call "achievement"—are confined to mankind.

It is also this failure to discriminate between social and cultural evolution which has led to the debate as to whether there are animal "societies" or not. This debate has incidentally obscured the whole question as to the exact relations between animal association and human society; and the obscuring of this relation has led to many of the one-sided views of social evolution and of social progress which we have at the present time, and even to the neglect in some cases of the differential factors in human social life. It will be worth while, then, to clear up, if we can, the relations between social and cultural evolution.

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[1] *Pure Sociology*, especially chap. iii. Keller in *Societal Evolution*, chap. i, apparently takes the same view. This is also the view of Professor A. L. Kroeber, who, in an article on "The Superorganic" in the *American Anthropologist*, April-June, 1917, says: "The beginning of social evolution . . . . coincides with . . . . the missing link" (p. 209).

In the first place, civilization or "culture" is the distinguishing mark of human social groups. All human groups possess it, though in differing degrees and qualities; and so far as we know there have never been any human groups, from the time that the species was first shaped up by the forces of evolution till now, without culture. Cultural beginnings must of course have been of the simplest sort, and it will be our task to outline, if possible, a scientific theory of their origin and development. On the other hand, we know of no subhuman group which possesses culture. Foundations are laid, to be sure, in the life of the animals below man for the development of culture; but, on their level, individual and social evolution has not gone far enough actually to produce it. The wonders of a hive of bees, or of a hill of ants, are truly "social," that is, they involve psychic interstimulation and response, but they are not "cultural." The organization achieved by such animal communities is not, so far as we know, on a cultural plane, but has been produced wholly by the action of the biological factors of variation, heredity, and selection, with perhaps the addition of a slight amount of habituation. Thus social evolution in its beginnings is dominated by organic evolution, and no new principle or direction is produced which results in a more or less independent evolutional series. Everything remains quite rigidly determined by the necessities of nutrition, reproduction, and defense. The food process, the reproductive process, and defense against enemies, along with the selective action of the environment, are the only factors which need to be taken into consideration in the group life of the animals below man. A rigid biological-geographical determinism will easily cover all of the facts of their social life.

Such biological factors, to be sure, loom large also in human social life. We need no further evidence of this than the many theories which have attempted to interpret the social life of man wholly in terms of the food process, the reproductive process, or geographic conditions. But these things man shares with the rest of the animal world, and if they alone could furnish an adequate basis for interpreting the social life of man, the sociology of a hive of bees should be adequate for a human group; and human sociology would be, when reduced to its lowest terms, a rigid biological-geographical determinism. To be sure, many sociological thinkers have unhesitatingly assumed this to be so; but overwhelming evidence has been accumulated against such an assumption. On the other hand, to discuss human social evolution without reference to the factors in organic evolution, as something apart from the rest of the world of life, is also becoming more and more impossible as our knowledge enlarges. There is a part even of the social evolution of man which is dominantly organic and biological, and in which the factors of heredity, variation, and selection remain supreme. Such, for example, are, in the main, the facts connected with birth, death, the growth of population, race, food, geographic environment, and selection in human society. Cultural facts may of course influence all of these, but in and of themselves, stripped of all their cultural modifications, they are not cultural facts. They are rather conditions which modify, and in turn are modified by, human culture. For example, courtship, mating, and family life are not in themselves cultural facts, since they are found in many of the animals below man. They are always social facts, however, and in all human groups they have become profoundly modified by cultural conditions; and they in turn form one of the chief foundations for cultural development.

Social evolution is thus a larger process than cultural evolution. It is a process which began long before man appeared upon the earth, whereas cultural evolution is coeval with human life. Cultural evolution is a smaller process, taking place within, and arising out of, social evolution, much as social evolution takes place within, and arises out of, organic evolution. Just as psychic interstimulation and response, when it was made possible by organic evolution, proved to be a basis upon which a new evolutional series—a series of groups of individuals carrying on a common life by means of interstimulation and response—was developed, so, too, some new development in social evolution must have proved the basis for another new evolutional series, the series of "acquired activity complexes," handed down by tradition from generation to generation in human groups, which make up the content of culture or civilization. Moreover, just as organic evolution conditions social evolution at every step, so social evolution conditions cultural evolution; that is, the facts of heredity, race, numbers, nutrition, reproduction, and defense condition the acquirement and transmission of those "activity complexes" which we term culture or civilization.

Now the problem of what was the new development in social evolution which made possible cultural evolution is of supreme importance for human sociology; for, owing to culture, the social life of man is so much more complex than that of any other animal that a sociology adequate for subhuman groups is quite inadequate for human communities. Man's social life, in other words, has become predominantly a cultural life. The understanding of cultural evolution is accordingly the main key to understanding man's present social condition.

But before we proceed to examine theories of cultural evolution let us see what the main facts of human culture are. It is commonly thought that the first of these facts is that man is a tool-making animal—that is, that he has the capacity for "invention"; that in this way human industry arose, and that upon industry as a basis was reared the whole fabric of civilization. If invention is taken in a broad enough sense there is perhaps but little objection to the use of the term. But it seems certain that language was "invented," or evolved, quite as early as tools were made. Coeval with the appearance of language, moreover, must have been the transmission through language of knowledge and skill; and thus science and art had their humble beginnings. Reflection by human groups upon their habits and ways of living together was made possible through intercommunication by means of language, and in time this led to the approval of some and disapproval of other habits upon the part of the group. Thus customary morality had its beginnings. Again, religion, as a valuing attitude toward the unknown, mysterious, wonder-working powers of the universe, seems to have been practically coeval with the appearance of man, and to have very early attached its supernatural sanctions to customary morality. Finally, reflection upon group organization and control led to organized government. Now these things—language, industry, science, art, morality, religion, government, in brief all human institutions and human achievements—make up the sum and substance of human culture. None of them, in the proper sense, are found at all in the animal groups below man, so far as we know; but they are the dominant things in human groups. The key to the evolution of culture, as we have just said, is the key to the most significant things in human sociology.

Now the advances in prehistoric archaeology and in cultural anthropology, within the last decade or two, have brought to scientific knowledge the main facts in these various lines of cultural development. Especially have the wonderful discoveries in the prehistoric archaeology of paleolithic times in Europe helped to bring these facts to light.[1] Of equal significance has been the work of a number of younger men, such as Goldenweiser, Lowie, and Wissler,[2] in the anthropology and the ethnology of the American Indian. The advance in anthropology, indeed, has been of scarcely less significance for sociology than the development of social psychology. Having now before us the main facts of the early history and cultural development of man, we are more nearly prepared to give, in outline at least, an adequate theory of human social evolution.

As a preliminary, however, let us note some of the main conclusions of physical anthropology. The upright attitude of man is no longer considered by anthropologists in general the distinguishing mark, or the significant thing, in human development. Neither is the freeing and development of the hand so considered. In spite of some recent theorizing to the contrary, anthropologists very generally hold that not only was primitive man, but man's precursor, a terrestrial rather than an arboreal animal. No doubt the freeing of the arms and the development of the hands, as well as a more or less upright attitude, were indispensable preliminaries to the evolution of man as man. But the distinguishing mark of man as man, anthropologists agree, is his human brain. It was a mutation in the direction of a larger brain, giving that organ of adaptation its specifically human powers and functions, which produced man. Nearly coincident, if not earlier, must have been the development of those vocal organs in the throat connected with the power of speech; for without the physical capacity for vocalization human life could never have developed as it did develop. The larger human brain connected itself with man's powers of vocalization and made possible the symbolization of his ideas in articulate speech or language; and language made possible tradition and all human culture. Upon these two mutations, then, the mutation which produced the higher, distinctively human centers of the brain and the mutation which produced the capacity to vocalize sounds, rest all the distinctive features in human social life. To be sure, the upright attitude of man, and his free hands, have been a third factor of very great import for the development of his social life. But had man been no more erect, say, than the baboon, and still possessed his distinctive brain and his powers of vocalization he would have developed a "culture" and a social life beyond that of any other animal on the planet.

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[1] For brief résumés, see especially Osborn, *Men of the Old Stone Age*, and Sollas, *Ancient Hunters*.

[2] See especially Wissler, *The American Indian: An Introduction to the Anthropology of the New World* (New York, 1917), and Lowie, *Culture and Ethnology* (New York, 1917). Among their more valuable papers may be mentioned: Wissler, "The Psychological Aspects of the Culture-Environment Relation," *American Anthropologist*, N.S., XIV, 217–25; *ibid.*, "Psychological and Historical Interpretations for Culture," *Science*, N.S., XLIII, 193–201; Lowie, "Social Organization," *American Journal of Sociology*, XX, 68–97; Goldenweiser, "The Social Organization of the Indians of North America," *Journal of American Folk Lore*, XXVII, 411–36; *ibid.*, "Diffusion vs. Independent Origin: A Rejoinder to Professor G. Elliot Smith," *Science*, N.S., XLIV, 531–33; *ibid.*, "Culture and Environment," *American Journal of Sociology*, XXI, 628–33.

Let us now consider, briefly, some of the main theories of the origin and development of human culture. The first which we shall mention is the well-known theory that the geographic environment has played the main part in the origin and evolution of culture. This theory has got its main support, perhaps, from the view which once held as to the part played by the external physical environment in organic evolution. Crudely stated, the theory was that each geographic area had created or produced animal and plant types suited to its climatic and general geographic conditions. Thus it became easy to say that the civilizations of men were like the fruits of trees, produced in accordance with climatic and racial conditions. But just as biologists no longer hold that the dynamic force in organic evolution is the natural selection of the environment, so anthropologists hold that the selective influence of the geographic environment is a minor factor in cultural evolution.

"When we consider," says Goldenweiser,[1] "that culture is essentially dynamic, while environment is static, our suspicions are at once aroused against any attempt to represent physical environment as a determinant of culture." Not that Professor Goldenweiser would deny all influence to physical environment, but, he says, "as we pass from primitive to more civilized conditions, the dependence of the material culture of a group on its physical environment becomes less and less conspicuous." In the same spirit Dr. Lowie says, "The environment enters into culture, not as a formative, but rather as an inert element, ready to be selected from and molded";[2] and after citing many examples of cultural change, not correlated with environmental changes, and vice versa, he concludes, "The environment furnishes the builders of cultural structures with brick and mortar, but it does not furnish the architect's plan."[3]

This last quotation is peculiarly significant as showing the attitude of the newer school of anthropologists. They do not deny that the geographic environment has its influence; but they do deny that it is creative. The creative factor they find to be in man as an individual, or in culture itself. It may be, of course, objected that such a view is all very well for short periods of time, but that over long periods of time the geographic factor is truly creative; thus it may be said, upon apparently good evidence, that crises in climate, and in geographic conditions generally, produced the selective agencies which evolved man as man. Biologists, of course, might demur to the characterization of selective agencies ever as "creative." Even if the dispute is only a verbal one, however, the fact that the brain of man was perfected in paleolithic times and equipped with the same powers and capacities as it now possesses would lead to the conclusion that crises in the geographic environment would after all only play the part of external stimuli, calling forth the energies of the higher centers of man's brain as an adaptive organ. It would be idle to ignore the influence of climatic and other geographic factors upon man's social life; but their influence belongs in that lower phase of social evolution which man shares with the brutes rather than in those higher phases which we call culture. That is to say, the influence of these geographic factors is in the way of furnishing materials for cultural evolution, and certain selective agencies which react upon cultural evolution. To use again the words of Lowie:

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[1] "Culture and Environment," *American Journal of Sociology*, XXI, 630.

[2] *Culture and Ethnology*, p. 63. [3] *Ibid.*, p. 64.

> [Geographical] environment cannot explain culture because the identical environment is consistent with distinct cultures; because cultural traits persist from inertia in an unfavorable environment; because they do not develop where they would be of distinct advantage to a people; and because they may even disappear where one would least expect it on geographical principles.

Thus we see that while the geographical interpretation of human history is one of the easiest hypotheses, from the standpoint of recent scientific research into human culture it is one of the most inadequate.

All recent anthropological theories of cultural development are couched in essentially psychological terms. Perhaps the simplest of the psychological theories of cultural evolution is the "psychic-accident-imitation theory." According to this theory, some accidental correlation of environmental influences and nervous conditions brings about a certain reaction in a certain individual, such as the invention of fire, for example. This reaction is imitated by other members of the individual group, and thus it becomes a cultural trait. A perhaps even better illustration, and the one most frequently used, was the first flaking of stone implements. It is said by those who adhere to this theory that the first stone tool made was made accidentally. The advantages of the tool were then perceived, and others like it were made by the process of copying. Thus one cultural trait after another sprang up by accident and was diffused by the imitation process. Carried to the extreme, this theory would lead to the conclusion that in most cases, at least, a single place of origin is to be sought for each cultural trait. This is the view held by the German ethnologist Graebner,[1] also, apparently, by Professor G. Elliot Smith in England.[2] Logically, also, this view leads to the search for one principal center of primitive civilization from which all of the principal cultural traditions were diffused.

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[1] *Methode der Ethnologie* (1911).

[2] See his *Migrations of Early Culture* (1914); also his monograph on "The Influence of Ancient Egyptian Civilization in the East and in America" (Manchester, 1916).

Without entering into a detailed criticism of this well-known anthropological and sociological theory, it will suffice to point out that we have too many distinct cultural areas in the world to fit in well with this conclusion. Many of these cultures appear to be entirely independent of one another, and even where we find "ethnographic parallels" we have a right to assume that they were diffused from a single center only where some continuity can be traced in the area over which they are spread. As a matter of fact, however, there is frequently no such continuity, and it is only by forcing our facts that we can seriously argue, for example, that the bow and arrow were invented but once in a single center, and diffused from that center by imitation over the rest of the earth. We now know, also, too much about the nature of invention to think that it can be adequately explained through "psychic accidents" and imitation. On the contrary, even the simplest stone implement which the archaeologist knows bears evidence of having been made in a rationalistic manner. In general, this theory fails to allow for the active adaptative processes of the human brain, but considers that organ as passive until some happy accident brings about an adjustment, which is then, for some mysterious reason, very actively copied by other brains. In general, we may say that this theory of cultural origin and development is not in accord with a sound psychology.[1]

Another psychological theory of cultural origin and development is what we may call the "habit-environment theory." This theory is not necessarily opposed to the one which we have just outlined, but it emphasizes that the essential thing in the origin and development of human culture is habituation to the environment. Perhaps the original invention was made by a "psychic accident," or in some other way; the essential thing is that when an invention is made a new environment is brought into existence to which the organism must adapt itself by habit. Each new element in material culture makes the environment more complex, and calls forth a more complex reaction on the part of the individuals who make up the cultural group. It is not so much adaptation to geographic environment, therefore, as it is adaptation to economic or technological environment which makes civilization. Evolution proceeds by adaptation to environment, and the norm of adaptation in the human species is the economic or technological environment. Thus social evolution proceeds by a series of ever more complex adjustments to an ever more complex economic and technological environment. The geographic environment is fully recognized in this theory, but it is in the background as compared with the technological environment. According to this theory, then, the stimulus, which the environment affords, and the habit, established by reaction to the stimulus, are the two chief things which we need to take into account in the interpretation of cultural evolution.

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[1] The psychological presuppositions of this article are, in general, those of Hobhouse, *Mind in Evolution*, revised edition (1915).

The habit-environment theory of cultural evolution is perhaps more common among economists and sociologists, especially those who have been influenced by the doctrine of "economic determinism," than among anthropologists proper. However, the new doctrine in anthropology which would make all cultural conditions exclusively determined by antecedent cultural conditions also comes very near to this habit-environment theory.[1] The objections to the theory have been in part already indicated in our discussion of the geographical theory of culture. For the technological environment is only a modification of the geographical, and any objections which would apply to the one would apply to the other also. This is true, in principle, of the general economic and industrial organization of human social groups also. All of these things are the indispensable conditions of culture, but they are not the dynamic which produces it. Attempts have been made in recent years to show that general occupational and economic conditions determine brain processes, and so the activity of the brain as an organ of adaptation. Such attempts, however, if successful, would negate the idea that the brain of man is an active, adaptive organ; but, as a matter of fact, they are not recognized as successful by the leading psychologists of the present. Moreover, if the habit-environment theory of culture were adequate, culture should with proper conditions make its appearance in the animal groups below man. The fundamental objection to the theory, in other words, is that it overlooks the differential marks of man as an animal, and of human association as distinct from animal association. Man is not simply an animal like other animals, with the merely added difference of greater capacity for the acquirement of habits. To be sure, this greater capacity for habituation to a complex environment which man shows has made possible the upbuilding of his culture; but this capacity itself goes back to the distinctive brain of man, and to express his cultural evolution in terms of stimulus and habit is an inadequate scientific way of formulating the process, because it formulates what is distinctive of man in terms of what is common to both man and the animals below him. The recognized scientific procedure in all such cases is to find the differential factor and to use it to explain the difference in the phenomena.

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[1] Lowie, *Culture and Ethnology*, pp. 66–97. See also Kroeber's article on "The Superorganic" (cited elsewhere). The writer intends to discuss this theory at length in a future paper.

A modification of the habit-environment theory of culture, which is to some extent a recognition of its weakness, is found in those writers who would add to environment and habit as determining culture certain human instincts, such as the instinct of workmanship,[1] native altruism, imitation, or curiosity. Now there can be no doubt that the human species has a peculiar instinctive equipment, and that human instincts do affect cultural evolution. As Wissler says,[2] "The individual's attitude toward culture is apparently an entirely innate affair"; and he explains, "While all culture is acquired, there must still be a complex of instincts to acquire and to participate in cultural activities; but only very rarely, if at all, specific instincts for the acquisition of a particular culture." Instincts, such as we have mentioned, have doubtless had much to do in predisposing man to cultural activities and in aiding in their development. Nevertheless, it is certain that the recognition of one or more distinctive human instincts, which have facilitated man's cultural evolution, does not save the habit-environment theory from its crudities. In the first place, it may be pointed out that such instincts as those mentioned are not peculiar to man. Thus, as regards the one which is thought by some to be the most distinctive, the instinct of workmanship or of constructiveness, it must be said that there are as good reasons for attributing it to some of the lower animals as to man. Again, many animal species undoubtedly excel man in native altruism. While imitation and curiosity are supposed to be peculiarly human, yet the apes and the monkeys have been commonly held, by most observers, to be well endowed with these instincts, even though in these animals they do not lead so definitely to the acquirement of new habits. In the second place, the objection made to the habit-environment theory, that it points out no differential factor or factors which have led to the production of human culture, holds good even if full recognition of the importance of instinct in man's behavior is added to that theory. For instinctive activities, in general, man shares with the other animals, and *even if he has distinctive instincts they could not give rise to a new type of social life and of social evolution.* The societies of animals, as we have seen, are quite rigidly determined by heredity, variation, and environmental selection; and "instinct" after all is only a name for the hereditary element which we find in the behavior of any species. If man's social life were determined in the same way as the social life of animal groups it could rise to no higher level. Culture would have been impossible, and man's social life would have remained in all essential respects like the social life of other animals. But this is obviously not the case.

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[1] See especially Veblen, *Instinct of Workmanship*, chap. i.

[2] "Psychological and Historical Interpretations for Culture," *Science*, XLIII, 196–97.

We must evidently formulate our theory of cultural evolution in terms of *distinctively* human traits. As soon as we do this, we shall find all the other factors falling into their proper places. It would be foolish to deny the existence and the influence of these other factors, such as geographic conditions, instincts, habits, and even "psychic accidents." But they give us no clear insight into the origin and development of human culture because they fail to include the *differential* factor or factors which produced this new evolutional series. Now, as we have seen, anthropologists are generally agreed that the distinctive mark of man is his larger and more highly organized brain. And this larger and more highly organized brain of man is characterized by certain areas and organs which are quite entirely lacking in the brains of other animals.[1] These are the higher intellectual centers of the brain, which have to do with conceptual processes, or abstract thinking. We have seen, too, that the larger and better-developed brain of man is correlated with vocal organs which make it possible for him to symbolize his conceptual processes in articulate sounds. Thus along with man's brain has gone the power of relatively definite intercommunication between man and man. Not only a more highly organized brain, with new and more highly organized intellectual centers, characterizes man, but also a more definite mechanism of interstimulation and response, which establishes new and better means of intercommunication. To use the old and more familiar terms, it is language and the power of abstract thought, or of forming concepts,[2] which is the foundation of man's cultural life, and so of his peculiar social evolution. These are the mutations, the new and qualitatively distinct factors, which enabled man to enter upon a new and distinct evolution.

To quote from Wissler, "the forms and varieties of cultural remains seem to necessitate from the first the existence of the rationalizing power at its present level."[3] Again,

> We fail to discover any essential differences in the tools of early man and those now made in a rationalistic manner; hence we can do no more than assume that from the first they were mere inventions. There may be, however, very great differences in the intensity of rationalization between our ancestors and ourselves, but it is difficult to see how even the earlier cultures we know could have taken form without the same qualitative rationalizing power.[4]

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[1] Of course, it is not simply certain areas in the brain, such as the "speech area" and the higher centers of the cortex, which differentiate man, but his whole nervous structure, which is much more complex than that of any other animal.

[2] That these two factors must have developed *pari passu* is a familiar generalization in anthropology and genetic psychology. Even though the power of abstraction existed it could get no development in either the individual or the group without relatively definite means of intercommunication. See the latter pages of this article; also, Hobhouse, *Mind in Evolution*, revised edition, chap. xiv.

[3] "Psychological and Historical Interpretations for Culture," *Science*, XLIII, 199.

[4] *Ibid.*, p. 200.

Again,

> No mechanical movement complexes for tool-making are innate, but there is in man's original nature a [rationalizing] mechanism that lays hold of things and thus supplies the basis for self-rationalization and for the acquisition of the great store of accumulated rationalizations of the race, or culture.[1]

Inasmuch as this argument applies not simply to tool-making but to all other cultural products, such as language, science, art, morality, and religion, Wissler rightly concludes: "We see that culture production, as the devising of tools, etc., is a product of the rationalizing capacity of man, which, in turn, is a part of his original nature."[2]

The full evidence for the conclusion just given cannot be presented within the space of this article, but the case of language will furnish an illustration, and, at the same time, suggest a needed modification in the conclusion presented. Apparently language is coeval with man, and highly organized languages, if we may judge from the lowest existing savages, were developed long before much material culture was achieved. Thus the bushmen of South Africa have a highly organized language, with a rich vocabulary, capable of expressing complex ideas, but their material culture remains, in all essentials, at the level of paleolithic man. This, of course, should not be the case if the habit-environment theory of culture were adequate and the norm of adjustment were technological or economic conditions. Very evidently a superior method of intercommunication, namely, articulate speech, was necessary for the development of culture. It was necessary because language is the vehicle of tradition, and the development of culture is essentially the development of tradition, or the growth of what sociologists are wont to call the "social mind."

It is not simply, then, as Professor Thomas has phrased it, that "man has a peculiar power of mental calculation which the animals do not possess,"[3] but that he has a peculiar mechanism of intercommunication. Culture, to be sure, to use Professor Thomas' language again, is "more fundamentally connected with the operations of the human mind than with the aspects of nature,"[4] but it would be wholly impossible without superior means of intercommunication.[1] In other words, culture in human society has been produced, not only by man's higher intellectual development, but by his more intense social life. To be sure, these two facts are intimately correlated. The higher development of man's brain is probably due to the fact that his precursors used the brain, not simply as an organ of adaptation to the physical environment, but even more as an organ of coadaptation with their fellows. It was the use of the brain as an organ of coadaptation, indeed, which fixed the mutation in the direction of centers for higher intellectual processes—processes, in other words, connected with the use of language. Sociologists have long emphasized that the development of the brain, or the mind of man, as a biological character, has been due to his social life, and recently anthropologists have come to the same view. For example, such development of the brain, since the most primitive times, as we can trace in the fossil remains of man, seems to have been due to the fact that races, or groups, of inferior brain organization have been eliminated in the competition or struggle with groups of higher brain organization.[2] The selection, in other words, fell upon groups, and not upon individuals as such. Everywhere, from the most primitive times, so far as anthropology can gather the evidence, man was a social creature living in small groups, probably of families and hordes.

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[1] "Psychological and Historical Interpretations for Culture," *Science*, XLIII, 200.

[2] *Ibid.*, p. 199.

[3] *Source Book for Social Origins*, p. 132.

[4] *Ibid.*, p. 130.

The mind of man, and so the brain of man, as distinctive from that of other animals, was developed, then, largely as an organ of intercommunication. Its function is more that of a connecting link between individuals, so to speak—that of an organ of coadaptation—rather than that of an organ of adaptation to physical nature. All of this, of course, presupposes an intense, though perhaps narrow, group life upon the part of primitive man and his immediate precursors. To meet the needs of this group life the rationalizing centers in the brain and superior means of intercommunication were developed. If there ever existed a brain that had the power of forming concepts without superior means of intercommunication it could make no use of such a power. It would remain a mere latent capacity. Intercommunication in the form of articulate speech develops this power in each individual after birth. Hence it is clear that the higher intellectual development of man and the development of superior means of intercommunication have gone hand in hand; and it is also clear that these two developments are the foundation of culture. Of course, back of them was the development of the appropriate structure in the brain and in the vocal cords, and these we have already emphasized as the two fundamental organic mutations upon which the evolution of human life, as we know it, has depended.

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[1] Cf. Hobhouse, *Mind in Evolution*, revised edition, chap. xiv.

[2] Thus the Neanderthal man, a race with low brain organization, was apparently eliminated in competition with the Cro-Magnon man, a race with higher brain organization.

The theory which we have just set forth may, perhaps, for want of a better name, be called the "socio-psychic theory of culture." It emphasizes, on the one hand, that culture is a social matter, that is, a product of group life; and on the other, that it is a matter of ideas and of the intercommunication of ideas. The rationalizing capacity of man is without doubt a part of his original nature, but this capacity has received its development in, and functions for, the social life. It is not alone the formation of abstract ideas, but even more their communication which is of significance for the development of culture. This latter point is often overlooked, but careful examination of the material of cultural anthropology, as well as of recorded human history, will show beyond a doubt that *the development of civilization has kept pace with the development of intercommunication*. The apparatus of intercommunication, from the spoken word to "wireless," is of more significance for the evolution of civilization than the apparatus for the production and distribution of material goods.[1]

This theory of cultural evolution has the advantage of making possible an organic synthesis of other theories. It does not deny that crises in the physical environment, psychic accidents, borrowing instincts, and habituation have all played a part in the development of culture; but by presenting that development as a "learning process,"[1] a process of rationalizing and of socializing on the part of the group, it finds the proper place for the part played in the process by crises in the environment, accidental adjustments, contacts between cultures, and, above all, by habituation. All of these, it finds, are stimuli, methods, or materials for that learning process in human groups which we call the development of culture. All, moreover, are subordinated to the processes of the human brain as an active, adaptive organ and to intercommunication as the means of coadaptation among the members of the group. In brief, it presents civilization as what it is, a process of active adaptation. Thus this theory is in full accord with modern psychology, which finds the human brain to be essentially an organ for active adaptation, and intercommunication to be essentially a process for bringing about coadaptive adjustments.

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[1] For a recent study in application to modern social conditions, sea Chapin, *An Historical Introduction to Social Economy* (1917), chap. xvi.

If the theory of cultural evolution, which we have just set forth, is correct, it should apply to any phase of human culture whether it be industry, morality, art, religion, or government. Let us take industry as an example. The first tools were invented, that is, devised in a rationalistic manner. The knowledge and skill which were used in making them were handed on to some other individual, usually in the same family or neighborhood group. This latter process, however, would require, in order to keep up any level of skill attained in the making of the tool, relatively definite means of intercommunication. Thus continuity in cultural development was made possible, while, at the same time, any greater capacity on the part of an individual for tool-making would be taken up by the social tradition and preserved. Intercommunication among the members of the group, after experience with certain types of tools, moreover, would lead to the selection of some and the rejection of others. Thus, gradually, a tradition regarding tool-making and industry in general would become established in the group, a tradition which was constantly growing by increments received from especially experienced or well-endowed individual minds. In the same way religious beliefs and practices became developed. Both religious beliefs and practices presuppose imagination and the

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[1] Cf. the writer's article, "The Educational Theory of Social Progress," *Scientific Monthly*, November, 1917, 439–50.

"ejective" type of mind on the part of the individual; in brief, the power of abstraction and of valuation.[1] But religious beliefs and practices did not become a part of culture until they were communicated and made a part of the social tradition of some group. Then they were reflected upon in relation to the welfare of the group, some selected and some rejected, gradually becoming more rationalized with the accumulated experiences of the group and with the reaction upon them of the more philosophical minds in the group; that is, those possessing the greater power of abstraction. Thus the evolution of the religious tradition was made possible.

It will be noted that this theory of cultural evolution, unlike many others, leaves ample room for the operation of original individual differences among the members of a group. If culture is a growing tradition, receiving increments ever now and again from the special endowments and peculiar experiences of some individual, culture is not a "closed circle," but there is room in it for the individual and his inventions. Indeed, the growth of culture is, as we have said, a process of learning, and its modifications are modifications made in the minds of learning individuals. The native aptitudes of the individual and his special experiences both count in the modifications of culture.[2] This could hardly be the case, however, if there were not communication of a very definite sort in human groups and more or less rational selection through discussion of cultural modifications initiated by the originality of individuals. This is why the superior mind counts for so much in human groups. In the social life of animals, on the other hand, individual variations in the way of more intelligent adaptation count for little or nothing, since there is no definite medium of intercommunication. Intelligent adaptation, if it counts in the animal world below man, can only count through natural selection. It cannot, therefore, affect animal communities, because these communities have no means, no agency, of rational selection by which they can make available for the group as a whole an advantageous variation in behavior on the part of any of its members. Such a variation in human groups may produce speedy modification in the behavior of the whole group for the simple reason that definite means of communication make the learning process one which is easily participated in by the group as a whole.

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[1] Religion in general, of course, was "invented" only in the same sense in which language was "invented." Any particular system of religious beliefs and practices is, however, invented as much as any system of industry or technology.

[2] Compare Goldenweiser's statements (*American Anthropologist*, XIX, 447): "The civilization stream is not merely carried, but is also unrelentingly fed by its component individuals." "The biographical individual . . . . is unique, and as such reacts on all the civilization of which he is the carrier."

According to this theory, culture consists of a number of more or less independent, yet related and interacting, growing traditions. This theory, in other words, destroys what we may well call the sociological superstition of a unified and simple social evolution, which takes place upon a single base. Culture, we see, rather consists of a number of growing traditions, each concerning a different phase of a very complex life-process. We have, for example, the technological tradition which may and does grow more or less independent of other traditions. Thus there can be a very high development of tool-making, apparently, with little development of the artistic tradition; that is, of the fine arts. The neolithic inhabitants of Europe, for instance, had highly perfected stone tools but little or no art. On the other hand, the upper paleolithic men had much more imperfect stone tools but a much more highly developed art. This illustration, however, shows clearly enough that certain developments in culture are dependent upon certain other developments. Unless paleolithic man had reached a certain point in the development of his technological tradition it is manifest that he could not have developed his artistic tradition. On the other hand, it is also evident that to expect the various traditions which enter into culture to keep step each with the development of the others, as if they were parts of a single organic whole, is absurd. When we examine the facts of anthropology, as well as of recorded history, we find as a rule that each age and each people specialize more or less in developing one or more cultural traditions. This is in accord with what we said about culture, in its development, being a "learning process." Now it is the industrial tradition, now the religious, now it is the artistic, now the military and governmental traditions which are successively developed by various peoples. To be sure, there may have to be a certain harmony and congruence among the differing traditions which make up the culture or civilization of a given people; but if so, the variations permissible are still very wide. It might be disturbing to an "economic determinist" of the deductive sort to find that the ancient Jews left ancestor worship behind while they were still in the pastoral stage of industry and developed a henotheism, if not a monotheism, while the Chinese preserved ancestor worship in a highly developed agriculture; but it would not disturb the scientific anthropologist, because he is used to "cultured cannibals," "artistic savages," and "philosophical barbarians." Indeed, as we remarked, the rule seems to be that when a people specialize in developing one line of culture they have less energy left for the equal development of other lines. If, however, general cultural evolution continues uninterrupted, the development of any one line, whether industrial, religious, or political, is bound to react, sooner or later, upon the development of other lines of cultural activity, since the social life is, after all, interacting and interdependent in all of its parts.

All that we have said implies, moreover, that cultural evolution takes place through the development and use by groups of what we may call "pattern ideas."[1] Thus in the making of stone implements a certain pattern, we find, is followed until it is relatively perfected; then some new invention produces a new type of implement, which in turn is followed until it is relatively perfected, while the old pattern is neglected and falls into disuse.[2] Thus cultural evolution is, as Ward phrased it, of the "sympodial type."[3] It is exactly the same in the development of a form of government, a style of art, or a way of religious or philosophical thinking as in the development of a stone implement. We find, in other words, the institutions and achievements of even the simplest, most uncultivated "nature peoples" growing up very frequently in the same way that the modern steam engine or rifle has been perfected. This is not to say, of course, that psychic accidents, instincts, and crises in the environment do not play their part. They may often have a very large part, indeed, in the initiation of some new line of development in culture. But when that line is initiated, a "pattern" is set up which is followed until for some reason or other it is discarded in favor of another pattern. Thus a culture or a civilization is really a great complex of "pattern ideas," of dominating standards and values, which guide the behavior of the whole cultural group; and these pattern ideas, as we have pointed out, may be more or less consistent, or more or less inconsistent, with one another. It is relatively rare in anthropology that we discover such thoroughgoing consistency as was found, for example, in the cultural and social life of the Eskimos before the whites intruded upon them. The cultural life of most peoples is apt to be made up of more or less conflicting, or at least not completely harmonized, traditions; and this seems to be the more true the more "advanced" a culture becomes. Hence the absurdity of trying to picture culture as a simple organic whole.

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[1] See Wissler, *The American Indian*, chap. xx.

[2] See the chapters in Osborn, *Men of the Old Stone Age*, describing the various paleolithic cultural epochs.

[3] *Pure Sociology*, chap. v.

It is evident, finally, that the psycho-social theory of cultural evolution is as applicable to recorded history, even to the history of the last century, as it is to the evolution of the cultures of savage and barbarous peoples. It thus becomes, and is sometimes called, the "historical conception of culture."[1] As Dr. Wissler says, the culture of a people like the Eskimos grew up in the same type manner as that of the English. We do not then need to look for the working, in the life of "nature peoples," of factors essentially different from those which we find at work in our own social life. Habit and environment, accident and imitation, instinct and reasoning, invention and intercommunication, have played, qualitatively, if not quantitatively, the same part in the culture of all peoples. Only it has been always the learned activities rather than the non-learned activities which have counted for the development of culture among all peoples; and man's power to form abstract concepts and to communicate them through language has been the sole basis upon which whole groups have been able to learn the same things. Hence, as cultural development is of the nature of a collective learning process, we must understand human psychology in order to comprehend it. But our theory of culture cannot be purely psychological, for the simple reason that culture is a social as well as a psychological phenomenon. To understand culture we must not only understand habit and instinct, reasoning and feeling, but also intercommunication and every form of interstimulation and response, of association and relationship, which may exist in the complex communities formed by human beings. It would be more just on this account to characterize the theory of culture which we have just presented as sociological rather than purely psychological.

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[1] See Wissler, *The American Indian*, chap. xx.

The reactions of this modern anthropological theory of culture upon sociology must now be obvious without any need, on our part, of further enlarging upon them.[1] It is evident that if we follow the clue which modern anthropologists are giving us, we shall reach a "human"—one might almost say a "humanistic"—sociology rather than the biological or mechanistic one which still obtains among some social thinkers.

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[1] A further development and application of the views presented in this article will be found in the writer's *Introduction to Social Psychology* (1917), a work which, however, presupposes the anthropological facts and theories set forth in this article.